

# Welcome to the Pond Water WebQuest!!!

## **Part 1 Kingdom Protista**

### **WEBSITE:**

<http://www.microscopy-uk.org.uk/index.html?http://www.microscopy-uk.org.uk/pond/index.html>

*This website is broken into groups just as your tasks are. You will find the answers to your tasks by clicking the Miscap links within the groups. For example: If you are trying to find out how flagellates move, you have to first click on the group Protozoa and then choose the Flagellated protozoa link under the Miscap column. Good luck. Careful not to get sucked into the jaws of the rotifers !!!!!!!*

### **Task I \*virtual pond dip**

Visit the virtual pond dip. List all species in the jar that are in the Protista (Protist) Kingdom. Make a separate list of all the species in the Animal Kingdom.

Protist kingdom:

Animal kingdom:

## Task II \*protozoa

## Protozoa

Draw a picture of the following Protozoa:

| Flagellate | Amoeba | Heliozoan | Ciliate<br>(paramecium) |
|------------|--------|-----------|-------------------------|
|            |        |           |                         |

Fill out the following table:

| <b>Creature</b>       | <b>How do they eat?</b> | <b>How do they move?</b> |
|-----------------------|-------------------------|--------------------------|
| Flagellates           |                         |                          |
| Amoeba                |                         |                          |
| Heliozoans            |                         |                          |
| Ciliates (paramecium) |                         |                          |

### *Flagellates*

- How does the Dinobryon eat?
- What helps termites digest wood?

## Amoeba

- What is a pseudopod?

### *Heliozoans*

- What separates a Heliozoan from other amoebas?

### ***Ciliates***

- What is a food vacuole? \_\_\_\_\_
- What are contractile vacuoles? \_\_\_\_\_
- What do nuclei contain? \_\_\_\_\_

### **Task III \*Algae**

#### Algae

Draw a picture of the following:

|           |                |             |                  |
|-----------|----------------|-------------|------------------|
| Euglenoid | Dinoflagellate | Green Algae | Blue-Breen Algae |
| Desmid    | Diatom         | Pond Scum   |                  |

Fill out the following table:

| <b>Creature</b>  | <b>How do they eat?</b> | <b>How do they move?</b> |
|------------------|-------------------------|--------------------------|
| Euglenoids       |                         |                          |
| Dinoflagellate   |                         |                          |
| Green Algae      |                         |                          |
| Blue-Green Algae |                         |                          |
| Diatoms          |                         |                          |
| Desmids          |                         |                          |
| Pond scum        |                         |                          |

### ***Euglenoids***

- What's the deal? Is this a protozoan or an algae?

### ***Green Algae***

- What is a volvox and explain what a volvox colony represents?

### ***Blue-Green Algae***

- Does the Blue-Green Algae belong to the protist kingdom or bacteria kingdom?

### ***Diatoms***

- What are the cell walls of the diatom made of?
- What's the difference between a pinnate and a centric diatom?
- Are diatoms freshwater, marine or both?

### ***Desmids***

- Are Desmids freshwater, marine or both?
- Where could you find a desmid?